

HOMINY CREEK BRIDGE
spanning Hominy Creek,
4 miles north and .5 mile west of the
town of Hominy
Hominy Vicinity
Osage County
Oklahoma

HAER No. OK-5

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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Rocky Mountain Regional Office
Department of the Interior
P.O. Box 25287
Denver, Colorado 80225

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HISTORIC AMERICAN ENGINEERING RECORD

HOMINY CREEK BRIDGE

I. INTRODUCTION

Location: Spans Hominy Creek on a county road approximately 4 miles north and 1/2 mile west of the town of Hominy, Oklahoma. Township 23N, Range 8E Section 12 (NW1/4 of SW1/4 of SE1/4). UTM: Zone 14, 4040260N, 733110E

Map Reference: U.S. G. S. 7.5' series, HOMINY, OKLAHOMA (1966, revised 1983)

Date of Construction: 1909 (Probably moved to present location in 1920. Not modified since then except for regular maintenance and repairs to deck and truss)

Present Owner: Osage County
Osage County Courthouse
Pawhuska, Oklahoma

Present Use: One-lane vehicular bridge scheduled to be replaced by a new two-lane vehicular bridge in fall of 1990. The existing structure will be demolished.

Significance: The Hominy Creek bridge is a relatively well preserved and unmodified combination Pratt High and Pratt Pony steel truss erected by the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas. There are relatively few combination bridges like this surviving on the county road system in Oklahoma, and its 1909 construction date is relatively early for Oklahoma.

Historian: John D. Hartley, Department
Archaeologist, Oklahoma Department of
Transportation, May 1990.

II. HISTORICAL CONTEXT

The Early Settlement of Osage County

Modern Osage County was originally included within areas ceded to the Cherokee Indians to accommodate their forced removal to Oklahoma in the mid-1800's. These lands comprised the Cherokee Nation proper, located in the northeastern corner of Oklahoma; and the Cherokee outlet, a largely undeveloped rectangle of land stretching west from the Cherokee Nation proper to the 100th parallel. What is now Osage County fell within the Cherokee Outlet and was not subjected to significant Cherokee settlement or development.

In 1866, the Cherokee Nation was forced to sign a new treaty with the United States Government as a result of their support for the Confederacy during the Civil War. The Cherokee Reconstruction Treaty gave the United States the right to resettle other Indian groups within the Cherokee Outlet, without requiring the approval of the Cherokee Nation.

In 1872, the Osage Indians were relocated from their former holdings in Missouri, Arkansas, and Kansas to what is now Osage County. An agreement between the Osage and the Cherokee Nation

provided that the Osage pay 70¢ per acre to the Cherokees for their new home.¹ Initially, the new Osage Reservation was viewed by Indians and Anglo-Americans alike as unsuitable for settlement due to its relatively rugged topography and shallow, rocky soils, and the Osages were considered particularly unfortunate to receive this assignment.² The subsequent discovery of oil in the Osage Reservation drastically changed this assessment.

Although the Osage Reservation was included within the newly established Oklahoma Territory in 1893, it escaped dismemberment until 1906, when the communal tribal land holdings were broken up into individual allotments of roughly 657 acres each.³ Although many of these individual allotments were soon sold or subdivided to Anglo-American settlers, the Osage Tribe received a common right to the mineral deposits. In later decades, oil royalties paid to the tribe on these deposits proved an immense boon to the Osage, eventually amounting to over \$10,000 annually for each tribe member.⁴

Anglo-American settlement of Osage County began in earnest during the 1880's, leading to the establishment of many small towns and villages along the numerous streams crossing the area. In 1907, Oklahoma was granted statehood and the county

government of Osage County was established, with the old Osage Agency town of Pawhuska as county seat.

Transportation Needs in the Hominy Area

The first Anglo-American settlements in the vicinity of Hominy occurred in 1885. Apparently the general area was also a common campground for the Osage, and it has been suggested that the name for the new town and nearby creek is an English corruption of its Osage name "Ho-Mo-Ie".⁵ The settlement of Hominy initially grew slowly, receiving its first post office on February 10, 1891. The town continued as an unincorporated settlement until March 3, 1908 when its citizens voted 99 to 9 for incorporation under the name "Town of Hominy".⁶

The economy of Hominy, like that of much of Osage County in the first decade of the 20th century, focused on cattle, cotton, and oil production. By 1909, there was an active oilfield north of the town, the town's cotton gin was processing 5000 bales of cotton annually, and up to 500,000 head of cattle were passing through the town to market.⁷ Rail service to Hominy from the south was initially provided by the Missouri-Kansas-Texas Railroad (MKT) from the town of Osage, completed in 1903. Much more important service was provided by the completion of the MKT line on northeastward to Bartlesville, in 1904.⁸

Prior to Statehood, and for several years thereafter, the few roads in Osage County amounted to little more than dirt cattle or wagon trails that followed the topographically easiest routes from countryside to railheads and markets. Although early 20th century Osage County Commission minutes contain numerous petitions to have graded sectionline roads opened throughout the vicinity of Hominy, the relatively rugged terrain of the area conspired against widespread construction of such facilities, and many of the early trail routes were simply incorporated into the growing county road system. In fact, even today, the characteristic checkerboard pattern of county sectionline roads typical throughout much of Oklahoma is relatively uncommon in parts of Osage County.⁹

As oilfield traffic increased during the first two decades of the 20th century, the inadequacy of many of the county's dirt roads and stream crossing became apparent, leading to an increased pace of bridge building. Out-of-State bridge fabricators such as the Rochester Bridge Company, the Canton Bridge Company, the Toledo-Massilon Bridge Company, the Midland Bridge Company, the Hennepin Bridge Company, and many others actively competed for this work throughout the county.¹⁰ The Missouri Valley Bridge Company alone completed at least 33 bridges for Osage County in ten years between 1908 and 1918.¹¹ The Hominy Creek Bridge is one of these.

Construction of the Hominy Creek Bridge

Documentary evidence regarding the construction of the Hominy Creek Bridge is incomplete, but it appears likely that it was not originally erected at its present location. Based upon direct and circumstantial evidence to be discussed below, it is very likely that the structure was originally erected four miles north and 1/2 mile east of Hominy on the early main road between Hominy and Pawhuska in 1909. Somewhat later, probably in 1920, it was moved to its present location on a county road approximately four miles north and 1/2 mile west of Hominy. In this location, it served to open up direct access to the Town of Hominy, together with the nearby Mound Valley School, from a large rural and oilfiled area north of Hominy Creek.

Minutes of the Osage County Commissioners give only an incomplete record of the construction of the Hominy Creek Bridge, and there is no record of a bridge being built in 1909 at the bridge's current location. However, on July 24, 1909, there is reference to a "contract let to the Missouri Valley Bridge and Iron Company for construction of a bridge across Hominy Creek - four miles north and one-half mile east of Hominy, Oklahoma, contract price \$7,566.00".¹² This bridge also appears on the contract records of the Missouri Valley

Bridge Company, as one of 19 structures completed for Osage County in 1909. It is described as consisting of one 125-foot span and one 75-foot span, together with three smaller approach spans.¹³ The dimensions given for the two main spans are virtually identical to those of the existing Hominy Creek Bridge. Coupled with the fact that no other described bridges in the company's records exhibit this similarity, there is little doubt that these references refer to the present Hominy Creek structure. There is no contemporary record for the completion of the bridge, but the 1909 date inscribed on the builder's plate still affixed to the trusses would suggest that it was completed within the year. The last direct documentary record of the Hominy Creek Bridge is on September 6, 1910, when the Osage County Commissioners report paying off the \$3,783.00 balance still owed for the structure.¹⁴

Based upon the location above in the County Commissioners minutes, it would appear that the Hominy Creek Bridge was originally erected on the early thru road between Hominy and Pawhuska. There is a stream crossing at this spot, and it seems logical that the construction of a "modern" steel truss bridge here would have been an early priority. Other direct documentary evidence to support this supposition is, unfortunately, unavailable. This first county maintained road

was taken over by the State as State Highway 25 in the early 1920's, but few early State Highway Department Records for this stretch of road survive.¹⁵ In 1931, Highway 25 was redesignated as State Highway 48.¹⁶ In 1937 a new alignment bypassing much of the old road was constructed.¹⁷ This new facility was redesignated State Highway 99 in 1939.¹⁸ Scattered portions of the original Hominy-Pawhuska road survive as part of the Osage County road system, with the area including the presumed first location of the Hominy Creek Bridge designated as State Highway 99D. According to Oklahoma Department of Transportation Bridge Division records, the bridge presently crossing Hominy Creek in this area was erected in 1920, presumably replacing the original 1909 Hominy Creek Bridge.¹⁹

The present location of the Hominy Creek Bridge is approximately four miles north and 1/2 mile west of Hominy; the 1909 location is given as four miles north and 1/2 miles east.²⁰ Due to the superficial similarity of these descriptions (identical except for the substitution of "east" for "west"), the possibility should be considered that the early description, which occurs only once in the records, is in error. If this were the case, then it would be reasonable to assume the Hominy Creek Bridge may have always been located at its present location. This

alternative is attractive, given the lack of any later references to the bridge, or its removal to another location, in County records or contemporary issues of newspapers such as the Hominy News-Republican or the Pawhuska Capital.

Circumstantial evidence tends to refute this interpretation, however. On June 9, 1909, the Osage County Commissioners proposed a massive \$325,000 bond election to raise funds for the construction of 88 roadway and highway bridges across the county.²¹ One of these proposed bridges (Bridge No.47) is described in the ballot published on July 23, 1909 as "...across Hominy Creek near range line between Sections 7 and 12, in Township 23, Range 8 and 9..." This corresponds very closely to the present location of the Hominy Creek Bridge. The election was held later in August and failed.²³

As noted previously, the construction contract for the Hominy Creek Bridge was let on July 24, 1909, during the midst of the bond issue campaign. It seems unlikely that "Bridge No. 47" would have been included in the bond issue if there already was a project underway to build a bridge near this location. In addition, since the bond issue failed, it is virtually impossible that any other bridge would have been erected in 1909 at the present location of the Hominy Creek Bridge.

There are no records extant that explicitly refer to the subsequent history of the Hominy Creek Bridge prior to its removal from the Hominy-Pawhuska road, nor is the exact date of its removal known. Oklahoma Department of Transportation Bridge Division records indicate that the present bridge at this location was built in 1920, so it may reasonably be assumed that the old Hominy Creek Bridge was removed and rebuilt at its present site shortly thereafter. Apparently this was done with county forces, as no reviewed County Government documents indicate that a contract was let for this purpose. The existing Hominy Creek Bridge show little evidence for subsequent modification or rehabilitation since being erected at its present site.

III. DESCRIPTION OF THE HOMINY CREEK BRIDGE

The main structure of the bridge consists of one 126-foot long Pratt thru truss combined with one 76-foot long Pratt pony truss forming the southern approach span. One 25-foot I-beam stringer forms the northern approach span. As presently sited, the bridge has a total length of 227 feet. Based upon the description of the structure in the records of the Missouri Valley Bridge Company, it was initially erected at its original location with two additional 25-foot I-beam approach spans.

The main Pratt thru truss exhibits horizontal top chords with inclined end posts. These members are constructed of composite C-channels with a riveted top plate and ventral lattice bracing. The truss contains five complete panels with triangular end frames. The four central vertical posts are formed of C-channels with lattice bracing; the two final posts are made of one pair of L-beams with intermittent stay-plate bracing. Lower chords consist of paired eyebars and I-beams. Diagonal members are paired eyebars and rods tightened with turnbuckles. Upper bracing is provided by L-beams and rods. The structure has a vertical clearance of 18 feet.

The Pratt pony truss also exhibits composite top and end chords manufactured of C-channels with riveted top plates and lattice ventral bracing. Bottom chords are paired eyebars and I-beams. The vertical posts are made of back-to-back paired L-beams with lattice bracing. Diagonals consist of paired eyebars and square rods with turnbuckles.

Steel members on both trusses bear a factory stamp "ILLINOIS". The combined truss structure has a total width of 17.8 feet, providing a clear roadway of 15.8 feet. The main truss is supported by steel casemate piers containing concrete. One pair of piers supports the connection between the pony and high

truss; another shorter set of piers lies under the junction of the high truss and the northern I-beam stringer approach. Concrete abutments are apparent on the north end of the bridge. Structural abutments (if any) on the south end are obscured by roadway fill and vegetation. Roadway decking consists of horizontally laid wooden planking with reinforced longitudinal timber runners to support one lane traffic. The entire bridge is provided with a lattice guardrail made of light L-beams and rectangular bars. This railing serves to visually unify the combined bridge elements.

Although several have been removed by vandalism, there are surviving rectangular bridge plates on both trusses. A builder's plate on the southeast end chord of the pony reads:

1909
BUILT BY
MO. VALLEY
BRIDGE AND
IRON CO.
LEVENWORTH
KANSAS

In addition, commemorative plates are found on both the pony and high trusses. These are inscribed:

BOARD OF COUNTY
COMMISSIONERS
OSAGE CO. OKLA
1909
J. W. BARLOW
A. H. BROWN
FRANK BRADEN

The Pratt trusses employed in the Hominy Creek Bridge are of a type commonly used for county bridge structures in the first decades of the 20th century. Such pin-connected structures could be easily erected by minimally trained crews and could also be readily disassembled for reerection at another location, a characteristic that was apparently put to good use with the Hominy Creek Bridge.

Although the two types of trusses employed in this bridge are very common as individual structures, it is much less common for them to be combined into one bridge. At the time that the Hominy Creek Bridge was reviewed by the Oklahoma State Historic Preservation Office, it was one of few combination truss

structures know from northeastern Oklahoma. In addition, the structure retains all of its original lattice guardrail and its timber deck (although newly improved) is consistent with the type of flooring originally used in such structures. Finally, its construction date of 1909 is relatively early in Oklahoma and coincides with the most active period of bridge building in Osage County by the Missouri Valley Bridge Company. These factors combined to yield a determination by the Oklahoma State Historic Preservation Office, that the Hominy Creek Bridge was eligible for inclusion in the National Register of Historic Places.²⁴

The Hominy Creek Bridge is currently owned and maintained by Osage County. Recent inspections of the bridge and roadway approach alignment revealed that the structure is no longer able to safely handle the volume and weight loads of existing traffic and that the road approach geometry is unsafe for a one-lane facility. For these reasons, it was determined necessary to replace the bridge with a modern, clear deck two-lane structure on an improved alignment. An attempt was made to donate the existing structure to the town of Hominy to serve as the entrance to the Drummond Home Park, but subsequent study showed that the rehabilitation required for the bridge to adequately serve on this vehicular entrance would have necessitated

considerable long-term maintenance costs and severely impacted the historical integrity of the trusses and pier design²⁵ The town of Hominy subsequently withdrew their offer for the bridge. It is scheduled to be demolished in late 1990.

IV. THE MISSOURI VALLEY BRIDGE AND IRON COMPANY

Unless otherwise cited, all information in this section is from a brief manuscript prepared for the Oklahoma Department of Transportation by Larry Jochims of the Kansas State Historical Society. With a few editorial changes, much of this document has been included verbatim below.

The Missouri Valley Bridge Company was originally formed as a partnership between Edwin I. Farnsworth and D. W. Eaves in 1874. Edwin Farnsworth was one of the early settlers and city officials in Leavenworth, Kansas. In 1867 he was appointed City Engineer, a position he held until 1871, when he became an agent for the Wrought Iron Bridge Company. In 1872, he became Chief Engineer for the competing King Iron Bridge Company of Cleveland, Ohio, which had established a shop in Topeka. Although successful, Farnsworth came to realize that it would be easier to manufacture and sell bridges in Kansas than import them from eastern firms. Returning to Leavenworth, he organized

the Missouri Valley Bridge and Iron Works. In 1878, the business was taken over by the banking firm of Insley and Shire. A. J. Tullock, an engineer from Rockford, Illinois was named engineer and manager. Farnsworth moved on to found the Kansas City Bridge and Iron Company, the Chicago Bridge and Iron Company and the firm of Farnsworth and Blodgett.

A. J. Tullock purchased interest in the company in 1880 and was listed as one of the proprietors. In 1888, he purchased the whole operation and operated it until his death in 1904. The company name was also changed in that year to Missouri Valley Bridge and Iron Company.

In 1904 the company was incorporated and the active members were past employees with the exception of Amos E. Wilson, a local banker. Wilson acted as president until 1907, when Katherine S. Tullock, Vice President, assumed the Presidency, holding this office until 1921, when H. S. Tullock became President.

During this period, bridge construction was performed for the principal railroads of the West and Southwest, and for the Mexican Central (National Lines of Mexico). The company also constructed the original Galveston Bay Bridge and the wharf at Tampico, Mexico.

Construction new supplements to early 20th Century issues of Engineering News indicates that the Missouri Valley Bridge and Iron Company was a major supplier of roadway bridges in Kansas, Oklahoma, New Mexico, Louisiana, and other states in west, south, and southwest.²⁶

In addition, the company continued its railroad bridge construction along with other bridges such as the McKinley Bridge and the foundation for the Free Bridge, both across the Mississippi River at St. Louis, Missouri. It also constructed Dam number 14 on the Ohio River near Wheeling, West Virginia, together with smaller structures in this class. During the First World War, they were responsible for the construction of the Ferris Type Ships (wood) at Quantico, Virginia, together with a floating Dry Dock at Galveston, Texas, for the U. S. Shipping Board.

From 1921 to 1946, the company became particularly adept at deep and difficult subaqueous foundation work. They constructed foundations for the Carquinez Straits Bridge at Crockett in the upper portion of San Francisco Bay and the East Bay foundations for the San Francisco Bay Bridge. They also became interested in power plant work, building plants in Lawrence and Abilene Kansas. A shipyard was activated in 1939 to build river towboats and barges.

During the Second World War they were one of five companies who constructed a shipyard and built LST Landing Craft and other floating equipment at Evansville, Indiana. The company also operated a shipyard at Leavenworth, Kansas where LCT's and LCM's were built.

In 1946, the shop and shipyard of Missouri Valley Bridge and Iron company was acquired by Missouri Valley Steel, Inc., a new company with J. V. Oliver as president. The original incorporators were R. J. Brown Jr., Jack Mitchell, R. D. Keeler, E. L. Hardeman, J. V. Oliver, Tim Bannon, Bink Ingersoll, W. Erickson and I. W. Rogers. Bill Oliver joined the company several months later.

During the 1950's the shipyard constructed boats, barges, and floating equipment as well as passenger cargo vessels and ocean going harbor tugs. These were sent to New Orleans and Charleston.

The bridge shop evolved into a fabricator of pollution control equipment and shipped material to all the states of the Union as well as foreign countries. On June 28, 1975 the shop was destroyed by fire.

On December 9, 1975, a new company, Missouri Valley Fabricators was formed to purchase the assets of Missouri Valley Steel and rebuild the burned out building.

Closely associated with Missouri Valley Bridge and Iron was the Leavenworth Bridge and Iron Company. It was founded by John B Tearney. Tearney came from a long line of stone masons and contractors. From 1875 until 1929, Tearney built most of the bridges and culverts in Leavenworth and adjoining counties, either by direct bid or by subcontract from Missouri Valley Bridge and Iron Company. He owned J. B. Tearney and Company, was a partner with Al Rohr, former contracting agent for Missouri Valley, in Rohr and Tearney, and was a silent partner in Leavenworth Bridge Company. The silence stemmed from the fact that all four companies often bid on the same contract and if one of the four received the contract they would divide it among themselves. Leavenworth Bridge was basically a bidding company, with J. B. Tearney and Company doing most of the actual construction.

~~END~~
V. ~~FOOTNOTES~~

¹ Osage County Historical Society, Osage County Profiles. (Pawhuska: Osage County Historical Society, 1978), 444.

² Gibson, Arrell M. Oklahoma A History of Five Centuries. (Norman: Harlow Publishing Corporation, 1965), 242.

³ Osage County Historical Society, Osage County Profiles. (Pawhuska: Osage County Historical Society, 1978), 444.

⁴ Gibson, Arrell M. Oklahoma A History of Five Centuries. (Norman: Harlow Publishing Corporation, 1965), 242.

⁵ Osage County Historical Society, Osage County Profiles. (Pawhuska: Osage County Historical Society, 1978), 234.

⁶ Osage County Commission Minutes, 3 March 1908, Works Progress Administration Transcriptions, File #M521-1-1-23-10, Oklahoma Department of Libraries, Oklahoma City.

⁷ Osage County Historical Society, Osage County Profiles. (Pawhuska: Osage County Historical Society, 1978), 233.

⁸ George, Preston and Wood, Sylvan R. The Railroads of Oklahoma. (Boston: Railway and Locomotive Historical Society, 1943), 53, Bulletin No. 60.

⁹ Oklahoma Department of Transportation, Atlas of County Roads Maps (Oklahoma City: Oklahoma Department of Transportation, 1989) Sheets 57(1), 57(2), 57(3), & 57(4).

¹⁰ Oklahoma Department of Transportation. Various entries in the computerized historic bridge file, Planning Division, Oklahoma City.

¹¹ Missouri Valley Bridge and Iron Company, Various dates, Contract File for Osage County on file at the Kansas State Historical Society, Topeka.

12 Osage County Commission Minutes, 24 July 1910,
Works Progress Administration Transcriptions, File
#M521-1-1-23-10, Oklahoma Department of Libraries, Oklahoma
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13 Missouri Valley Bridge and Iron Company, 28 July
1909, Contract 2845, Contract File for Osage County on File at the
Kansas Historical Society, Topeka.

14 Osage County Commission Minutes, 6 September 1910,
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15 Oklahoma State Highway Commission, Preliminary
Designation of the State Highway System. (Oklahoma City:
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Condition of Improvement of the State Highway System.
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17 Oklahoma State Highway Commission, Map Showing
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18 Oklahoma State Highway Commission, Map Showing
Condition of Improvement of the State Highway System.
(Oklahoma City: State Highway Commission, 1939).

19 Oklahoma Department of Transportation, 1990 Bridge
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Department of Transportation, Oklahoma City.

20 Osage County Commission Minutes, 24 July 1910,
Works Progress Administration Transcriptions, File
#M521-1-1-23-10, Oklahoma Department of Libraries, Oklahoma
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21 Osage County Commission Minutes, 24 July 1910,
Works Progress Administration Transcriptions, File
#M521-1-1-23-10, Oklahoma Department of Libraries, Oklahoma
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- 22 Hominy News-Republican, 23 July 1909.
- 23 Hominy News-Republican, 21 August 1909.
- 24 Oklahoma Historical Society, 24 February 1987.
Letter to Oklahoma Department of Transportation, on file at
Oklahoma Department of Transportation, Oklahoma City.
- 25 Oklahoma Department of Transportation, Federal
Highway Administration, and Osage County, February 1990
Section 4(f) Evaluation on Hominy Creek Bridge Replacement
BR0-57(260)C, on file at Oklahoma Department of Transportation,
Oklahoma City.
- 26 Engineering News, January 1908 - December 1909.

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